QIAcube® Protocol Sheet

October 2021

General Information

Application	RNA
Kit	miRNeasy Tissue/Cells Advanced Kit (cat. no. 217604)
Sample material	Tissues and cells
Short protocol name	Standard
Version	1
Full protocol name	Purification of total RNA, including miRNA, from tissue and cells
Editable parameters	Elution volume: 30–100 µl in increments of 10 µl; default set to 50 µl
Required QIAcube software versions	Firmware version FIW-50-001-J_FW_MB.hex and PLC program version FIW-50-002-G-PLC_MB.prs or higher; available at the QIAcube Web Portal

Shaker

Material	Up to 30 mg frozen or 15 mg stabilized easy-to-lyse tissue, or up to 1 x 10^7 cells disrupted in 450 µl Buffer RLT (for detailed information, see "Comments" on the next page)
Vessel	2 ml safe-lock microcentrifuge tube*
Adapter	Shaker adapter for 2 ml microcentrifuge tubes (marked with "2")

* Sample Tubes RB, 2 ml (cat. no. 990381; see **www.qiagen.com/MyQIAcube**).

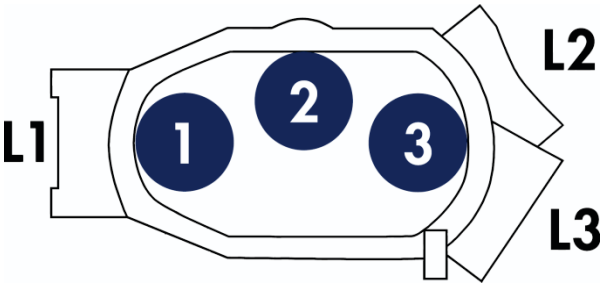
Disposable Tips

Disposable Filter-Tips, 1000 µl

Reagent Bottle Rack

Rack labeling strip	Unlabeled

Rotor Adaptor



Position	Reagent
1	–
2	Isopropanol
3	80% ethanol
4	Buffer RWT
5	Buffer RPE
6	RNase-free water

Position	Labware	Lid position
1	RNeasy® Mini spin column	L1
2	–	–
3	1.5 ml collection tube*	L3

* Sarstedt® Micro tube 1.5 ml (cat. no. 72.690; see **www.sarstedt.com**).

Microcentrifuge Tube Slots

	Position		
	A	**B**	**C**
Content	–	–	–
Vessel	–	–	–

* Sarstedt Micro tube 1.5 ml (cat. no. 72.690; see **www.sarstedt.com**).

	Volume of reagent required for the indicated number of samples (µl)		
Number of samples	**RNase A (stock + water)**	**B**	**C**
2	–	–	–
3	–	–	–
4	–	–	–
5	–	–	–
6	–	–	–
7	–	–	–
8	–	–	–
9	–	–	–
10	–	–	–
12	–	–	–

Comments

Things to do before starting

Prepare the samples by following steps 1–7 of protocol "Purification of Total RNA, Including Small RNAs, from Animal Cells" or steps 1–8 of protocol "Purification of Total RNA, Including Small RNAs, from Animal Tissues" in the *miRNeasy Tissue/Cells Advanced Mini Kit Handbook* 02/2021.

Cells: Harvest a maximum of 1 x 10^7 cells either as a cell pellet or lysed directly in the vessel. Add 450 µl Buffer RLT. Vortex for 30 s or homogenize.

Tissues: Disrupt the tissue (≤30 mg) and homogenize the lysate in 450 µl Buffer RLT.

Add 140 µl Buffer AL and mix thoroughly. Incubate at room temperature for 3 min. Transfer the homogenized lysate to a gDNA Eliminator spin column placed in a 2 ml collection tube (supplied). Centrifuge for 30 s at ≥8000 x *g* (≥10,000 rpm). Discard the column and save the flow-through.

Transfer the flow-through to a new 2 ml reaction vessel (not provided). Add 20 µl Buffer RPP. Close the tube cap and mix vigorously by vortexing for >20 s. Incubate at room temperature for 3 min. Centrifuge at 12,000 x *g* for 3 min at room temperature to pellet the precipitate.

Note: Supernatant should be clear and colorless. Transfer supernatant (approx. 300 µl) to a new 2 ml reaction tube. This step is optional when working with cell samples.

Note: Kit content is calculated for manual use. When automated on the QIAcube, the sample number could be less than stated in the kit handbook or on the kit label.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at **www.qiagen.com** or can be requested from QIAGEN Technical Services or your local distributor.